REMARKS

Status of the Claims

Claims 1 and 4-7 are currently pending. Claims 4-6 are withdrawn from further consideration. Claims 1 and 7 stand rejected. Claim 7 is currently amended. Reconsideration and allowance of all of the pending claims is respectfully requested.

New matter is not being introduced into the Application by way of this amendment. The amendment to claim 7 is supported at, for example, page 6, line 22 of the specification. Since this Reply is directly responsive to the Examiner's remarks in the Office Action dated March 6, 2006 and places the claims in a better condition for allowance, entry of this amendment under 37 C.F.R. §1.116 is appropriate and is respectfully requested.

Claim Rejections - 35 U.S.C. §112, second paragraph

Claim 7 is rejected under 35 U.S.C. §112, second paragraph as indefinite. The word "type" in claim 7 is contended to render the claim indefinite. In addition, in "R^9_x" the variable x was inadvertently left undefined.

Claim 7 is currently amended to address each of the above issues. The word "type" has been deleted from claim 7, and the variable "x" has been defined as being from 1 to 4. Support for the definition of "x" may be found at page 6, line 22 of the specification. Accordingly, withdrawal of this rejection is respectfully requested.

Obviousness-type Double Patenting

Claims 1 and 7 stand provisionally rejected under the judicially created doctrine of obviousness double patenting, as unpatentable over claims 1 and 2 of copending Application 10/618,765 in view of JP 2002-12159, U.S. 5,371,279, JP 5-140267 and U.S. 5,840,417. For the following reason, this rejection is respectfully traversed.

A terminal disclaimer over co-pending Application No. 10/618,765 is attached. Accordingly, withdrawal of this rejection is respectfully requested.

Claim Rejections - 35 U.S.C. §103

Claims 1 and 7 stand rejected under 35 U.S.C. §103(a) as unpatentable over JP 2002-121259 in view of Qi (U.S. 5,371,279), JP 5-140267 and Bolger (U.S. 5,840,417). For the following reasons, this rejection is respectfully traversed.

As an initial matter, the Applicants refer the Examiner to a recent USPTO Board of Appeals decision which discusses the use of foreign language documents during prosecution:

> When the examiner, as here, relies on a document that is in a foreign language, the examiner bears the burden of providing an English translation, at the latest, before forwarding the appeal to the board. Similarly, when the Applicant relies on a document that is in a foreign language for rebuttal of a rejection, the Applicant bears the burden of producing an English translation to support his position.

Ex parte Bonfils, 64 USPQ2d 1456, 1460 (Board of Patent Appeals and Interferences 2002). Accordingly, the Applicants respectfully submit that since the Examiner is relying upon JP 2002-121259 for the rejection, the Examiner bears the burden of providing an English translation.

The Office Action asserts that JP 2002-121259, unlike the present invention, discloses an equivalent addition of amine curing agent to epoxy resin. However the Examiner further contends that page 4, paragraph [0017] of the machine translation of JP 2002-121259 suggests that "as much as double the equivalent is acceptable if the property of the hardened material is not spoiled even if it is not desirable." See Office Action, page 4, section 6.

The Applicants submit that JP 2002-121259 at page 4, paragraph [0017] of the machine translation does not state that "as much as double the equivalent is acceptable if the property of the hardened material is not spoiled even if it is not desirable." The Applicants respectfully

submit that JP 2002-121259 at page 4, paragraph [0017] of the machine translation generally discloses that an equivalent is preferred, although the amount may be off an equivalent as long as the properties are not compromised. JP 2002-121259 at page 4, paragraph [0017] also generally discloses that it is undesirable for the amount to be too much off an equivalent because the resin becomes uncured or the pot life and shelf life become impaired.

The Applicants respectfully submit that JP 2002-121259 at page 4, paragraph [0017] of the machine translation therefore does not disclose "that as much as double" an equivalent is acceptable. JP 2002-121259 also does not disclose or suggest the ratio of 0.7/1 to less than 0.9/1 of amine curing agent to epoxy resin that is presently claimed. Accordingly, all of the elements of claim 1 are not disclosed or suggested by the prior art as is required for a proper rejection under 35 U.S.C. §103(a).

The undersigned has been advised that the correct translation of paragraph 17 is as follows:

"[0017]

The preferred curing agents used in the present invention are diaminodiphenylsulfone curing agents because they are effective in formulating thermosetting liquid resin compositions which can be B-staged. The amount of diaminodiphenylsulfone added is desirably equivalent to the total epoxy resin equivalent, but may be off the equivalent as long as cured resin properties are not compromised. However, it is undesired that the amount is too much off the equivalent, because the resin becomes undercured or the pot life and shelf life on use are impaired."

In addition, as is disclosed at page 9, lines 16-22 of the present specification, "If the compounding molar ratio is less than 0.7, unreacted amine groups are left, probably resulting in a lower glass transition temperature and poor adhesion. With a molar ratio in excess of 0.9, there is a possibility that the toughness K_{1c} value lowers and the cured product becomes hard and

brittle enough for cracks to form during the reflow operation or thermal cycling." This feature is not expected from the disclosure of JP '259.

According to the present invention, when the epoxy resin and the aromatic amine curing agent of formulae (1) to (3) are used in a molar ratio between 0.7 and 0.9, the liquid epoxy resin composition becomes effectively adherent to the surface of silicon chips and especially photosensitive polyimide resins and nitride films, and significantly resistant to thermal shocks, and maintains satisfactory properties under hot humid conditions.

Moreover, JP '259 does not suggest a toughness K_{1c} of at least 3.5 according to the present invention obtained by the inventive composition comprising components (A) to (D).

Qi, JP5-140267, and Bolger also fail to disclose or suggest the inventive ratio of 0.7/1 to 0.9/1 as well as the inventive composition comprising components (A) to (D) as presently claimed.

Accordingly, the prior art does not disclose or suggest all of the elements of the present invention. The Applicants respectfully submit that this rejection must now be withdrawn. An early reconsideration and Notice of Allowance are earnestly solicited.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact J. Mark Konieczny, Registration No 47,715 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

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Respectfully submitted,

By _____
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